

File 155:MEDLINE(R) 1966-2001/Jul W2 (c)  
format only 2001 Dialog Corporation

## Set Items Description

Ref	Items	RT	Index-term
E1	1		THYROIA
E2	1		THYROIDCYTES
E3	90754		*THYROID
E4	0 1		THYROID ANTAGONISTS
E5	0 1		THYROID CANCER
E6	516 3		THYROID CARTILAGE
E7	21		THYROID CARTILAGE --ABNORMALITIES
-AB			
E8	59		THYROID CARTILAGE -ANATOMY AND HISTOLOGY AH
E9	4		THYROID CARTILAGE --BLOOD SUPPLY --BS
E10	4		THYROID CARTILAGE --CHEMISTRY --CH
E11	3		THYROID CARTILAGE --CYTOLOGY --CY
E12	1		THYROID CARTILAGE --EMBRYOLOGY --EM
E13	5		THYROID CARTILAGE --GROWTH AND DEVELOPMENT --G
E14	46		THYROID CARTILAGE --INJURIES --IN
E15	2		THYROID CARTILAGE --INNERVATION --IR
E16	3		THYROID CARTILAGE --METABOLISM --ME
E17	69		THYROID CARTILAGE --PATHOLOGY --PA
E18	25		THYROID CARTILAGE --PHYSIOLOGY --PH
E19	8		THYROID CARTILAGE --PHYSIOPATHOLOGY --PP
E20	1		THYROID CARTILAGE --RADIATION EFFECTS --RE
E21	49		THYROID CARTILAGE --RADIOGRAPHY --RA
E22	5		THYROID CARTILAGE --RADIONUCLIDE IMAGING --RI
E23	271		THYROID CARTILAGE --SURGERY --SU
E24	6		THYROID CARTILAGE --TRANSPLANTATION --TR
E25	3		THYROID CARTILAGE --ULTRASONOGRAPHY --US
E26	4		THYROID CARTILAGE --ULTRASTRUCTURE --UL
E27	494 5		THYROID CRISIS
E28	29		THYROID CRISIS --BLOOD --BL
E29	30		THYROID CRISIS --CHEMICALLY INDUCED --CI
E30	77		THYROID CRISIS --COMPLICATIONS --CO
E31	98		THYROID CRISIS --DIAGNOSIS --DI
E32	136		THYROID CRISIS --DRUG THERAPY --DT
E33	2		THYROID CRISIS --ENZYMOLGY --EN
E34	6		THYROID CRISIS --EPIDEMIOLOGY --EP
E35	123		THYROID CRISIS --ETIOLOGY --ET
E36	3		THYROID CRISIS --IMMUNOLOGY --IM
E37	13		THYROID CRISIS --METABOLISM --ME
E38	7		THYROID CRISIS --MORTALITY --MO
E39	12		THYROID CRISIS --NURSING --NU
E40	5		THYROID CRISIS --PATHOLOGY --PA
E41	36		THYROID CRISIS --PHYSIOPATHOLOGY --PP
E42	35		THYROID CRISIS --PREVENTION AND CONTROL --PC
E43	1		THYROID CRISIS --RADIOGRAPHY --RA
E44	3		THYROID CRISIS --RADIONUCLIDE IMAGING --RI
E45	1		THYROID CRISIS --RADIOTHERAPY --RT
E46	12		THYROID CRISIS --SURGERY --SU
E47	140		THYROID CRISIS --THERAPY --TH
E48	9605 21		THYROID DISEASES

S1 90754 "THYROID"  
S2 9605 "THYROID DISEASES"

Ref	Items	Type	RT	Index-term
R1	9605	21		*THYROID DISEASES
R2	9605 X			DC=C19.874. (THYROID DISEASES)
R3	786 N	9		CRETINISM

R4	192 N	6		EUTHYROID SICK SYNDROMES
R5	11460 N	6		GOITER
R6	1512 N	2		GOITER, ENDEMIC
R7	2024 N	3		GOITER, NODULAR
R8	471 N	3		GOITER, SUBSTERNAL
R9	8883 N	15		GRAVES' DISEASE
R10	18660 N	6		HYPERTHYROIDISM
R11	276 N	3		HYPERTHYROXINEMIA
R12	19237 N	5		HYPOTHYROIDISM

S3	9605			DC="C19.874."
S4	786			"CRETINISM"
S5	192			"EUTHYROID SICK SYNDROMES"
S6	11460			"GOITER"
S7	1512			"GOITER, ENDEMIC"
S8	2024			"GOITER, NODULAR"
S9	471			"GOITER, SUBSTERNAL"
S10	8883			"GRAVES' DISEASE"
S11	18660			"HYPERTHYROIDISM"
S12	276			"HYPERTHYROXINEMIA"
S13	19237			"HYPOTHYROIDISM"
S14	111387	S1 OR (S2-S13)		
S15	16877			CLOSTRIDIUM
S16	14	S14 AND S15		
S17	49003			NEUROTOXIN OR TOXIN
S18	323	S14 AND S17		

Ref	Items	RT	Index-term
E1	34		BOTULINUM TOXIN TYPE E
E2	14		BOTULINUM TOXIN TYPE F
E3	3071 11		*BOTULINUM TOXINS
E4	568		BOTULINUM TOXINS --ADMINISTRATION AND DOSAGE -
E5	251		BOTULINUM TOXINS --ADVERSE EFFECTS --AE
E6	248		BOTULINUM TOXINS --ANALYSIS --AN
E7	34		BOTULINUM TOXINS --ANTAGONISTS AND INHIBITORS
E8	168		BOTULINUM TOXINS --BIOSYNTHESIS --BI
E9	64		BOTULINUM TOXINS --BLOOD --BL
E10	1		BOTULINUM TOXINS --CHEMICAL SYNTHESIS --CS
E11	119		BOTULINUM TOXINS --CHEMISTRY --CH
E12	30		BOTULINUM TOXINS --CLASSIFICATION --CL

Ref	Items	Type	RT	Index-term
R1	3071	11		*BOTULINUM TOXINS
R2	3071 X			DC=D24.185.926.123.179. (BOTULINUM TOXINS)
R3	3071 X			DC=D24.185.926.640.75. (BOTULINUM TOXINS)
R4	114 X	1		BOTULIN
R5	0 X	1		CLOSTRIDIUM BOTULINUM TOXINS
R6	1785 R	10		BOTULISM
R7	628 R	108		CHOLINERGIC AGENTS
R8	1519 R	5		CLOSTRIDIUM BOTULINUM
R9	301 B	29		ANTI-DYSKINESIA AGENTS
R10	9006 B	16		BACTERIAL TOXINS
R11	7222 B	15		NEUROTOXINS
R12	585 N	4		BOTULINUM TOXIN TYPE A

S19	3071			"BOTULINUM TOXINS"
S20	16			S19 AND S14
S21	9605			"THYROID DISEASES"
S22	0			DELETE S21
S23	0			S3 AND S18 AND (PERFRINGENS )
S24	8			S21 AND S

16/6/1 10026619 99097345 PMID: 9878248

Genes for the CPE receptor (CPETR1) and the human homolog of RVP1(CPETR2) are localized within the Williams-Beuren syndrome deletion. Dec 15 1998

16/6/2 04722792 81133651 PMID: 6258596

Demonstration and characterization of partial glyceride specific lipases in pig thyroid plasma membranes. Nov 28 1990

16/6/3 04661467 84263155 PMID: 6378767

Regulation of the immune response to tetanus toxoid in H<sub>2</sub>O<sub>2</sub>'s disease. Jul 1984

16/6/4 04201303 81164223 PMID: 7215238  
Gas-forming suppurative thyroiditis. Mar 1981

16/6/5 02675218 77138183 PMID: 191247  
Effects of concanavalin A and neuraminidase on cyclic AMP levels and 14C-1-glucose oxidation in dog thyroid slices. Aug 1976

16/6/6 02255653 69254786 PMID: 4895160  
[Various findings on the processes of natural detoxication of the body during infectious processes] Nekotorye dannye o protsessakh estestvennoi detoksikatsii organizma pri infektsionnykh protsessakh. Oct 1967

16/6/7 02092271 74150094 PMID: 4363284  
Possibility of cancer diagnosis by detection of Clostridial antibodies. 1972

16/6/8 02044882 71067137 PMID: 4321500  
Endemic goiter in Greece: some new epidemiologic studies. Feb 1971

16/6/9 01943289 73001076 PMID: 4560621  
Treatment of malignant tumors with spores of Clostridium butyricum M 55. 3. Therapeutic experiments on metastasizing tumors of various organs] Die Behandlung maligner Geschwulste mit sporen von Clostridium butyricum M 55. 3. Therapieversuche an metastasierenden Geschwulsten ver verschiedener Organe. 1972

16/6/10 01695705 67139798 PMID: 4960830  
Action of phospholipase C on the thyroid. Abolition of the response to thyroid-stimulating hormone. Apr 25 1967

16/6/11 01512434 70106909 PMID: 4312983  
Role of lecithin in the mechanism of TSH action. Apr 1970

16/6/12 01502036 68318489 PMID: 4298230  
Effect of sphingomyelinase from Clostridium perfringens on the metabolic activity and phospholipid composition of thyroid slices. Jul 1 1968

16/6/13 01496873 67221632 PMID: 4292226  
The purification and properties of a thyroid-stimulating factor isolated from Clostridium perfringens. Aug 25 1967

16/6/14 00882933 71059144 PMID: 5487765  
Clostridium septicum infection of the thyroid gland. Sep 1970

16/7/1 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
10026619 99097345 PMID: 9878248

Genes for the CPE receptor (CPETR1) and the human homolog of RVP1 (CPETR2) are localized within the Williams-Beuren syndrome deletion.

Paperna T; Peoples R; Wang YK; Kaplan P; Francke U

Department of Genetics, Stanford University School of Medicine, Stanford, California, 94305, USA.

Genomics (UNITED STATES) Dec 15 1998, 54 (3) p453-9, ISSN 0888-7543 Journal Code: GEN Contract/Grant No.: HD01181, HD, NICHD; HD33505, HD, NICHD; HG00298, HG, NHGRI Languages: ENGLISH Document type: Journal Article Record type: Completed

Williams-Beuren syndrome (WBS) is a neurodevelopmental disorder affecting multiple systems. Haploinsufficiency of genes deleted in chromosomal region 7q11.23 is the likely cause for this syndrome. We now report the localization of the genes for the CPE-R (Clostridium perfringens enterotoxin receptor, CPETR1) and the human homolog of RVP1 (rat ventral prostate 1 protein, CPETR2), both previously mapped to 7q11, to the WBS critical region. A single nucleotide polymorphism (SNP) present in CPETR1 has been identified and was used to determine parental origin of the deleted allele in five informative families. The mouse homologs Cpetr1 and Cpetr2 were identified and mapped to the conserved syntenic region on mouse chromosome 5. Northern blot analysis of CPETR1 demonstrates tissue specificity, with expression in kidney, lung, thyroid, and gastrointestinal tissues. In mouse, Cpetr1 is expressed in the early embryo, appears to be developmentally upregulated during gestation, and is present in adult tissues. Our results suggest a role for CPE-R in internal organ development and function during pre- and postnatal life.

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16/7/2 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
04722792 81133651 PMID: 6258596

Demonstration and characterization of partial glyceride specific lipases in pig thyroid plasma membranes.

Igarashi Y; Kondo Y

Biochemical and biophysical research communications (UNITED STATES) Nov 28 1980, 97

(2) p766-71, ISSN 0006-291X Journal Code: 9Y8 Languages: ENGLISH Document type: Journal Article Record type: Completed Record Date Created: 19810413

16/7/3 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
04661467 84263155 PMID: 6378767

Defective regulation of the immune response to tetanus toxoid in Hashimoto's disease.

Fawcett J; Hutton C; McLachlan SM; Clark F; Rees Smith B

Immunology (ENGLAND) Jul 1984, 52 (3) p525-8, ISSN 0019-2805 Journal Code: GH7

Languages: ENGLISH Document type: Journal Article Record type: Completed

The humoral immune response to tetanus toxoid has been studied in patients with Hashimoto's disease. Although the magnitude of the response was similar to that observed in normal subjects, the Hashimoto patients demonstrated an inability to regulate their levels of tetanus toxoid antibody. This apparent defect in the control of antibody synthesis may be an important factor in both the initiation and perpetuation of autoimmune thyroid disease. Record Date Created: 19840829

16/7/4 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
04201303 81164223 PMID: 7215238

Gas-forming suppurative thyroiditis.

Michel RG; Hall DM; Woodard BH

Ear, nose, & throat journal (UNITED STATES) Mar 1981, 60 (3) p127-30, ISSN 0145-5613 Journal Code: EDF

Languages: ENGLISH Document type: Journal Article Record type: Completed Record Date Created: 19810613

16/7/5 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
02675218 77138183 PMID: 191247

18/6/1 11223191 21167934 PMID: 11267996

Mechanisms of P2 receptor-evoked DNA synthesis in thyroid FRTL-5 cells. May 2001

18/6/2 10931041 20494849 PMID: 11041451

The thyrotropin receptor is not involved in the activation of p42/p44 mitogen-activated protein kinases by thyrotropin preparations in Chinese hamster ovary cells expressing the human thyrotropin receptor. Sep 2000

18/6/3 10880922 20406492 PMID: 10951975

Altered expression of G proteins in thyroid gland adenomas obtained from hyperthyroid cats. Aug 2000

18/6/4 10709815 20327831 PMID: 10867750

Is autism a G-alpha protein defect reversible with natural vitamin A? Jun 2000

18/6/5 10648056 20322683 PMID: 10866314

Cancer gene therapy by thyroid hormone-mediated expression of toxin genes. Jun 15 2000

18/6/6 10607495 20252140 PMID: 10794166

Study of the olivocochlear neurons using two different tracers, fast blue and cholera toxin, in hypothalamic rats. Apr 2000

18/6/7 10557836 20202319 PMID: 10737891

Extracellular ATP-mediated phospholipase A(2) activation in rat thyroid FRTL-5 cells: regulation by a G(i)/G(o) protein, Ca(2+), and mitogen-activated protein kinase. May 2000

18/6/8 10516902 20163705 PMID: 10701770

Effect of endotoxin challenge on hepatic 5'-deiodinase activity in cattle. Jan 2000

18/6/9 10513968 20115224 PMID: 10648115

Adjuvant effects of cholera toxin b subunit on immune response to recombinant thyrotropin receptor in mice. Feb 2000

18/6/10 10359010 20000371 PMID: 10532571

What is the role of botulinum toxin in the treatment of dysthyroid strabismus? Oct 1999

18/6/11 10358931 20000569 PMID: 10532769

Strabismus surgery among aged medicare beneficiaries. Dec 1997

18/6/12 10341274 99328094 PMID: 10401667

An adenosine receptor agonist-induced modulation of TSH-dependent cell growth in FRTL-5 thyroid cells mediated by inhibitory G protein, Gi. Apr 1999

18/6/13 10336103 99262181 PMID: 10329469

Effects of concanavalin A and neuraminidase on cyclic AMP levels and 14C-1-glucose oxidation in dog thyroid slices.

Yamashita K; Aiyoshi Y; Oka H; Ogata E

Endocrinologia japonica (JAPAN) Aug 1976, 23 (4) p355-8, ISSN 0013-7219 Journal Code: EG5 Languages: ENGLISH Document type: Journal Article Record type: Completed

Treatment with concanavalin A at 100 microg/ml or higher concentrations significantly increased 14C-1-glucose oxidation in dog thyroid slices as reported in other tissues. This treatment exerted no effect on tissue cyclic AMP levels. Neuraminidase at the same concentrations also had similar effects on these parameters. Neither concanavalin A nor neuraminidase at the concentrations up to 100 microg/ml had the TSH effect on both tissue cyclic AMP and 14C-1-glucose oxidation. These results indicate that modification of carbohydrate moieties of glycoproteins on the cell surface may cause an increase in glucose metabolism without any critical effect on cyclic AMP system and in the process of TSH response. Record Date Created: 19770527

16/7/9 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
01943289 73001076 PMID: 4560621

Treatment of malignant tumors with spores of Clostridium butyricum M 55. 3. Therapeutic experiments on metastasizing tumors of various organs] Die Behandlung maligner Geschwulste mit sporen von Clostridium butyricum M 55. 3. Therapieversuche an metastasierenden Geschwulsten verschiedener Organe.

Kretschmer H; Glaser A; Grasser A

Archiv fur Geschwulstforschung (GERMANY, EAST) 1972, 39 (4) p315-21, ISSN 0003-911X Journal Code: 746 Languages: GERMAN Document type: Clinical Trial; Journal Article Record type: Completed Record Date Created: 19721110

16/5/10 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
01695705 67139798 PMID: 4960830

Action of phospholipase C on the thyroid. Abolition of the response to thyroid-stimulating hormone.

Macchia V; Pastan I

Journal of biological chemistry (UNITED STATES) Apr 25 1967, 242 (8) p1864-9, ISSN 0021-9258 Journal Code: HIV Languages: ENGLISH Document type: Journal Article Record type: Completed Record Date Created: 19670706

Tags: Animal; In Vitro

Descriptors: Phospholipases--pharmacology--PD; \*Thyroid Gland--drug effects--DE; \*Thyrotropin--pharmacology--PD; Acetylcholine--pharmacology--PD; Clostridium--enzymology--EN; Dogs; Edetic Acid--pharmacology--PD; Glucose--metabolism--ME; Neuraminidase--metabolism--ME CAS Registry No.: 50-99-7 (Glucose); 51-84-3 (Acetylcholine); 60-00-4 (Edetic Acid); 9002-71-5 (Thyrotropin)

Enzyme No.: EC 3.1.- (Phospholipases); EC 3.2.1.18 (Neuraminidase)

16/5/13 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.  
01496873 67221632 PMID: 4292226

The purification and properties of a thyroid-stimulating factor isolated from Clostridium perfringens.

Macchia V; Bates RW; Pastan I

Journal of biological chemistry (UNITED STATES) Aug 25 1967, 242 (16) p3726-30, ISSN 0021-9258 Journal Code: HIV Languages: ENGLISH Document type: Journal Article Record type: Completed Record Date Created: 19671022

Tags: Animal; In Vitro

Descriptors: Bacterial Proteins--analysis--AN; \*Bacterial Proteins--pharmacology--PD; \*Clostridium perfringens--analysis--AN; \*Thyroid Gland--metabolism--ME; Carbon Dioxide; Carbon Isotopes; Cattle; Chromatography, Gel; Dogs; Glucose--metabolism--ME; Molecular Weight; Peptide Hydrolases; Phosphates--metabolism--ME; Phospholipids--biosynthesis--BI; Thyrotropin; Trypsin CAS Registry No.: 0 (Bacterial Proteins); 0 (Carbon Isotopes); 0 (Phosphates); 0 (Phospholipids); 124-38-9 (Carbon Dioxide); 50-99-7 (Glucose); 9002-71-5 (Thyrotropin)

Enzyme No.: EC 3.4 (Peptide Hydrolases); EC 3.4.21.4 (Trypsin)

Sphingosylphosphorylcholine activates Gq, Gi-2, and Gi-3 in thyroid FRTL-5 cells: implications for the activation of calcium fluxes and Na+-H+ exchange. May 19 1999

18/6/14 10335016 99261834 PMID: 10329948

Thyroid hormone induces activation of mitogen-activated protein kinase in cultured cells. May 1999

18/6/15 10291747 97423434 PMID: 9277376

Effects of triiodothyronine administration on the adenylyl cyclase system in brown adipose tissue of rat. Aug 1997

18/6/16 10240117 99371424 PMID: 10443824

The posterior thyroplasty window: anatomical considerations. Aug 1999

18/6/17 10180055 99302523 PMID: 10374293

[Systemic manifestations of myasthenia gravis and its putative pathogenesis] Jun 1997

18/6/18 10076868 99196145 PMID: 10098509

Thyrotropin regulates c-Jun N-terminal kinase (JNK) activity through two distinct signal pathways in human thyroid cells. Apr 1999

18/6/19 10058220 99165190 PMID: 10067867

Regulation and transfer of a murine model of thyrotropin receptor antibody mediated Graves' disease. Mar 1999

- 18/6/20 10021711 99082623 PMID: 9865104  
Bilateral laryngeal movement disorder and synkinesia: value of botulism toxin. [Apropos of a case] Trouble de la mobilité laryngée bilatérale et synkinesies: intérêt de la toxine botulique. A propos d'un cas. 1998
- 18/6/21 09880412 98421840 PMID: 9751220  
Cyclic AMP impairs the PRL stimulation of iodide uptake into mouse mammary tissues. Oct 1998
- 18/6/22 09828189 98361458 PMID: 9697993  
Characterization of the murine immune response to the murine TSH receptor ectodomain: induction of hypothyroidism and TSH receptor antibodies. Jul 1998
- 18/6/23 09825762 98378683 PMID: 9713061  
Botulinum toxin A treatment of overactive corrugator supercilii in thyroid eye disease. May 1998
- 18/6/24 09783338 98283956 PMID: 9618427  
Effect of antithyroid drugs on hydroxyl radical formation and alpha-1-proteinase inhibitor inactivation by neutrophils: therapeutic implications. Jun 1998
- 18/6/25 09700286 98184392 PMID: 9525480  
Protein tyrosine phosphorylation and calcium signaling in thyroid FRTL-5 cells. May 1998
- 18/6/26 09674340 98070720 PMID: 9405207  
Loss of biological activity due to Glu→Arg mutation at residue 11 of the B subunit of cholera toxin. Nov 1997
- 18/6/27 09589335 97462684 PMID: 9322911  
Sphingosine 1-phosphate mobilizes sequestered calcium, activates calcium entry, and stimulates deoxyribonucleic acid synthesis in thyroid FRTL-5 cells. Oct 1997
- 18/6/28 09597710 97424751 PMID: 9278864  
Somatostatin blocks the potentiation of TRH-induced TSH secretion from perfused pituitary fragments and the change in intracellular calcium concentrations from dispersed pituitary cells elicited by prepro-TRH (PS4) or by tri-iodothyronine. Aug 1997
- 18/6/29 09568457 97405869 PMID: 9260913  
The phosphatase inhibitor okadaic acid stimulates the TSH-induced G1-S phase transition in thyroid cells. Aug 1 1997
- 18/6/30 09470883 98025576 PMID: 9376224  
Sodium saccharin inhibits adenylyl cyclase activity in non-taste cells. Sep 1997
- 18/6/31 09469678 97375443 PMID: 9231760  
Thyroid-specific expression of cholera toxin A1 subunit causes thyroid hyperplasia and hyperthyroidism in transgenic mice. Aug 1997
- 18/6/32 09463997 97254493 PMID: 9099903  
Multiple G-protein coupling of the dog thyrotropin receptor. Mar 14 1997
- 18/6/33 09459986 97240583 PMID: 9124507  
Sphingosine 1-phosphate stimulates Na<sup>+</sup>/H<sup>+</sup> exchange in thyroid FRTL-5 cells. Mar 1997
- 18/6/34 09455989 97131950 PMID: 8977407  
Sphingosine 1-phosphate stimulates hydrogen peroxide generation through activation of phospholipase C-Ca<sup>2+</sup> system in FRTL-5 thyroid cells: possible involvement of guanosine triphosphate-binding proteins in the lipid signaling. Jan 1997
- 18/6/35 09428059 98018536 PMID: 9380360  
Chemodenervation in treatment of upper eyelid retraction. 1997
- 18/6/36 09408392 98018742 PMID: 9376076  
TCR  $\beta$  chain usage of TSH receptor-specific CD4<sup>+</sup> T cells in Graves' disease patients and healthy humans. Oct 1997
- 18/6/37 09372529 97366554 PMID: 9223384  
N6-isopentenyladenosine affects cAMP-dependent microfilament organization in FRTL-5 thyroid cells. Jul 10 1997
- 18/6/38 09342718 97329812 PMID: 9186271  
Assessment of thyroid growth stimulating activity of immunoglobulins from patients with autoimmune thyroid disease by cytokinesis arrest assay. May 1997
- 18/6/39 09338863 97324798 PMID: 9180903  
Adenosine inhibits DNA synthesis stimulated with TSH, insulin, and phorbol 12-myristate 13-acetate in rat thyroid FRTL-5 cells. Jun 1997
- 18/6/40 09270589 97184183 PMID: 9030595  
Basolateral localization and transcytosis of gonadotropin and thyrotropin receptors expressed in Madin-Darby canine kidney cells. Feb 21 1997
- 18/6/41 09245241 97094291 PMID: 8940379  
Effects of hypothyroidism on brown adipose tissue adenylyl cyclase activity. Dec 1996
- 18/6/42 09245237 97094274 PMID: 8940362  
Transformation of rat thyroid follicular cells stably transfected with cholera toxin A1 fragment. Dec 1996
- 18/6/43 09229599 97046665 PMID: 8891586  
Amiloride inhibits the G protein and K<sup>+</sup> channel in the cloned thyroid cell line. Sep 19 1996
- 18/6/44 09224622 96290945 PMID: 8754735  
Increased cyclic adenosine 3',5'-monophosphate inhibits G protein-coupled activation of phospholipase C in rat FRTL-5 thyroid cells. Aug 1996
- 18/6/45 09159599 97154483 PMID: 9001201  
Thyroid hormones as neurotransmitters. Dec 1996
- 18/6/46 09076947 97110552 PMID: 8952703  
Purine agonists stimulate the secretion of endothelin-1 in rat thyroid FRTL-5 cells. Dec 1996
- 18/6/47 09036686 96290969 PMID: 8754759  
Thyrotropin (TSH) receptor antibodies (TSHrAb) can inhibit TSH-mediated cyclic adenosine 3',5'-monophosphate production in thyroid cells by either blocking TSH binding or affecting a step subsequent to TSH binding. Aug 1996
- 18/6/48 09036613 97050599 PMID: 8895327  
Transfer of thyroiditis, with syngeneic spleen cells sensitized with the human thyrotropin receptor, to naive BALB/c and NOD mice. Nov 1996
- 18/6/49 09028997 96426631 PMID: 8828910  
Inhibitions of protein kinases and protein phosphatases have opposite effects on thyrotropin-stimulated cAMP accumulation in human thyroid cells. Jun 1996
- 18/6/50 09005228 96328895 PMID: 8735590  
An adenosine derivative cooperates with TSH and Graves' IgG to induce Ca<sup>2+</sup> mobilization in single human thyroid cells. Apr 19 1996
- 18/6/51 08916239 96217296 PMID: 8641209  
Effect of thyroid hormones on G proteins in synaptosomes of chick embryo. Jun 1996
- 18/6/52 08910353 96159051 PMID: 8591983  
Purine agonist ATP is a comitogen in thyroid FRTL-5 cells. Feb 1996
- 18/6/53 08909827 96133888 PMID: 8552586  
The human thyrotropin receptor: a heptahelical receptor capable of stimulating members of all four G protein families. Jan 9 1996
- 18/6/54 08896009 95280650 PMID: 7760657  
Growth and invasion of differentiated thyroid gland carcinoma: importance of signal transduction [Wachstum und Invasion beim differenzierten Schilddrüsenkarzinom: Stellenwert der Signaltransduktion. 1995
- 18/6/55 08895568 95271486 PMID: 7752073  
Antiarrhythmic drugs inhibit the G-protein and K<sup>+</sup> channels in the cultured thyroid cell line. May 1995
- 18/6/56 08894783 95250934 PMID: 7733252  
Mechanisms of action of somatostatin on human TSH-secreting adenoma cells. Apr 1995
- 18/6/57 08893052 95188900 PMID: 7882998  
Stimulation of mitogen-activated protein kinase by thyrotropin in astrocytes. Feb 15 1995
- 18/6/58 08892884 95181324 PMID: 7876108  
Stimulation of mitogen-activated protein kinase by thyrotropin in primary cultured human thyroid follicles. Feb 24 1995
- 18/6/59 08891996 95129470 PMID: 7828520  
Thyrotropin-induced hydrogen peroxide production in FRTL-5 thyroid cells is mediated not by adenosine 3',5'-monophosphate, but by Ca<sup>2+</sup> signaling followed by phospholipase-A2 activation and potentiated by an adenosine derivative. Jan 1995
- 18/6/60 08886263 95076361 PMID: 7985086  
An in vitro model of thyroid neoplasia: permanently transfected FRTL-5 cells with thyroglobulin promoter-cholera toxin A1 subunit minigene. Dec 1994
- 18/6/61 08883992 95025566 PMID: 7939340  
[G-proteins and endocrine tumors. The example of acromegaly] Proteines G et tumeurs endocrines. L'exemple de l'acromégalie. May 1 1994
- 18/6/62 08860246 94351732 PMID: 7915334  
Enhanced negative inotropic effect of an adenosine A1-receptor agonist in rat left atria in hypothyroidism. Apr 1994
- 18/6/63 08858318 94307166 PMID: 8033808  
1,25-Dihydroxyvitamin D3 attenuates adenylyl cyclase activity in rat thyroid cells: reduction of thyrotropin receptor number and increase in guanine nucleotide-binding protein Gi-2 alpha. Aug 1994
- 18/6/64 08847202 96198112 PMID: 8626445  
Acidification of serotonin-containing secretory vesicles induced by a plasma membrane calcium receptor. Mar 15 1996
- 18/6/65 08806554 96121532 PMID: 8557239  
Adenosine A1-receptors inhibit cAMP and Ca<sup>2+</sup> mediated calcitonin secretion in C-cells. Sep 1995
- 18/6/66 08754639 96368096 PMID: 8772249  
Phagocytosis of fluorescent beads by rat thyroid follicular cells (FRTL-5): comparison with iodide trapping as an index of functional activity of thyrocytes in vitro. Nov-Dec 1995
- 18/6/67 08733946 95136974 PMID: 7835309  
Cooperation of thyrotropin, but not basic fibroblast growth factor, with an adenosine receptor agonist in Ca<sup>2+</sup> mobilization from thapsigargin-sensitive pools in single FRTL-5 thyroid cells. Feb 1995
- 18/6/68 08688702 96143307 PMID: 8540223  
Tissue and serum swainsonine concentrations in sheep ingesting Astragalus lentiginosus (locoweed). Aug 1995
- 18/6/69 08644975 96051445 PMID: 7588435  
Effects of domoic acid on serum levels of TSH and thyroid hormones. Aug 1995
- 18/6/70 08621210 96048029 PMID: 7556171  
Enhanced cAMP accumulation by the human thyrotropin receptor variant with the Pro52Thr substitution in the extracellular domain. Aug 15 1995
- 18/6/71 08551923 95328208 PMID: 7604496  
The lesions of locoweed (Astragalus mollissimus), swainsonine, and castanospermine in rats. May 1995
- 18/6/72 08540047 95310374 PMID: 7790385  
Evidence for a pertussis toxin sensitive calcium entry pathway in thyroid FRTL-5 cells. Jul 1995
- 18/6/73 08535498 95303473 PMID: 7784056  
Signalling pathways involved in the mitogenic action of lysophosphatidylinositol. Jun 1 1995
- 18/6/74 08507969 95259060 PMID: 7740542  
The distribution of [125I]ricin in mice following aerosol inhalation exposure. Apr 12 1995
- 18/6/75 08451837 95203495 PMID: 7895913  
Inhibition of human thyroid adenylyl cyclase by 2-iodoaldehydes. Dec 1994
- 18/6/76 08441166 95032020 PMID: 7945296  
Genistein, an inhibitor of protein tyrosine kinase, is also a competitive antagonist for P1-purine (adenosine) receptor in FRTL-5 thyroid cells. Sep 30 1994
- 18/6/77 08419051 94250251 PMID: 8192675  
Permissive stimulation of Ca(2+)-induced phospholipase A2 by an adenosine receptor agonist in a pertussis toxin-sensitive manner in FRTL-5 thyroid cells: a new 'cross-talk' mechanism in Ca2+ signalling. May 1 1994
- 18/6/78 08373503 95252689 PMID: 7734842  
Characterization of ganglioside associated with the thyrotrophin receptor. Dec 1994
- 18/6/79 08340253 95151543 PMID: 7848834  
Morphological and biochemical analysis of regeneration after cardiotoxin injury of Xenopus laevis fast muscles. Sep 1994
- 18/6/80 08318262 95109447 PMID: 7810443  
Pathomorphological changes caused by T-2 trichothecene fusaric toxin in geese. 1994
- 18/6/81 08276709 95047020 PMID: 7958555  
Influence of low-level exposure to Fusarium mycotoxins on selected immunological and hematological parameters in young swine. Jul 1994
- 18/6/82 08251346 95009832 PMID: 7925183  
Vulnerability of the developing brain to thyroid abnormalities: environmental insults to the thyroid system. Jun 1994
- 18/6/83 08221936 94349911 PMID: 8070394  
Control of the dog thyrocyte plasma membrane iodide permeability by the Ca(2+)-phosphatidylinositol and adenosine 3',5'-monophosphate cascades. Sep 1994
- 18/6/84 08164191 94255188 PMID: 8196925  
Control of eyelid retraction associated with Graves' disease with botulinum A toxin. Mar 1994

- 18/6/85 08139342 94220033 PMID: 8166643  
Effect of sphingosine derivatives on calcium fluxes in thyroid FRTL-5 cells. Apr 1 1994
- 18/6/86 08079762 94029952 PMID: 8216254  
Thyrotropin stimulates invasion and growth of follicular thyroid cancer cells via PKC- rather than PKA-activation. Sep 30 1993
- 18/6/87 08078260 93388616 PMID: 8397204  
Glycerophosphoinositol 4-phosphate, a putative endogenous inhibitor of adenylyl cyclase. Sep 25 1993
- 18/6/88 08072229 93228655 PMID: 8471065  
Tissue- and subunit-specific regulation of G-protein expression by hypo- and hyperthyroidism. Apr 6 1993
- 18/6/89 08070496 93178636 PMID: 8382633  
Functional regulation of GTP-binding protein coupled to insulin-like growth factor-I receptor by lithium during G1 phase of the rat thyroid cell cycle. Mar 8 1993
- 18/6/90 08070146 93165745 PMID: 8434024  
Stimulation of human thyroid growth via the inhibitory guanine nucleotide binding (G) protein Gi: constitutive expression of the G-protein alpha subunit Gi alpha-1 in autonomous adenoma. Feb 15 1993
- 18/6/91 08031267 93162094 PMID: 8381742  
Hepatocyte homologous beta 2-adrenergic desensitization is associated with a decrease in number of plasma membrane beta 2-adrenoceptors. Jan 15 1993
- 18/6/92 08009520 93367491 PMID: 8103083  
Dopamine agonist-mediated inhibition of acetylcholine release in rat striatum is modified by thyroid hormone status. Sep 1993
- 18/6/93 07947261 94041171 PMID: 8225200  
Regulation of calcitonin secretion in vitro. Sep 1993
- 18/6/94 07911503 93145899 PMID: 8381075  
Overexpression of the intact thyrotropin receptor in a human thyroid carcinoma cell line. Feb 1993
- 18/6/95 07848188 92313812 PMID: 1319725  
Autocrine biological effects of glycosyl inositol phosphate produced by reconstituted pig thyroid follicles: role of pertussis toxin sensitive G proteins. Mar 1992
- 18/6/96 07848033 92308818 PMID: 1319454  
Release of interleukin-6 by human thyroid epithelial cells immortalized by simian virus 40 DNA transfection. Jun 1992
- 18/6/97 07845926 92239242 PMID: 1349229  
Inhibition of Ca(2+)-induced calcitonin secretion by somatostatin: roles of voltage dependent Ca2+ channels and G-proteins. Jan 1992
- 18/6/98 07845696 92231839 PMID: 1314567  
Extracellular ATP stimulates three different receptor-signal transduction systems in FRTL-5 thyroid cells. Activation of phospholipase C, and inhibition and activation of adenylyl cyclase. Apr 1 1992
- 18/6/99 07845551 92226684 PMID: 1564434  
Modification of the amounts of G proteins and of the activity of adenylyl cyclase in human benign thyroid tumours. Mar 1992
- 18/6/100 07844085 92165907 PMID: 1311331  
Epidermal growth factor stimulates cAMP accumulation in cultured rat cardiac myocytes. Mar 1992
- 18/6/101 07838965 92081007 PMID: 1660629  
Increased stimulatory G protein in neoplastic human thyroid tissues. Dec 1991
- 18/6/102 07836071 91377390 PMID: 1654722  
Muscarinic regulation of phospholipase A2 and iodide fluxes in FRTL-5 thyroid cells. Aug 1991
- 18/6/103 07835173 91349228 PMID: 1652591  
Involvement of second messenger systems in stimulation of angiotensin converting enzyme of bovine endothelial cells. Aug 1991
- 18/6/104 07834955 91342595 PMID: 1652050  
Primary structure and functional characterization of a human 5-HT1D-type serotonin receptor. Aug 1991
- 18/6/105 07832539 91267294 PMID: 1646741  
Alteration of the functional activity of Gs protein in thyrotropin-desensitized pig thyroid cells. Feb 1991
- 18/6/106 07831861 91243638 PMID: 1903697  
Protein kinase C activation mimics but does not mediate thyrotropin-induced desensitization of adenylyl cyclase in cultured dog thyroid cells. Jun 1991
- 18/6/107 07826721 91153561 PMID: 1981365
- Partial coupling with pertussis toxin-sensitive G proteins of dopamine and somatostatin receptors involved in regulation of adenohypophyseal secretion. Oct 1 1990
- 18/6/108 07824603 91060616 PMID: 2174058  
Cyclic AMP regulation of Gs protein. Thyrotropin and forskolin increase the quantity of stimulatory guanine nucleotide-binding proteins in cultured thyroid follicles. Nov 15 1990
- 18/6/109 07822079 90365522 PMID: 2118333  
Molecular heterogeneity of the subclasses of islet-activating protein (pertussis toxin)-sensitive GTP-binding proteins in porcine thyroid tissue. Sep 1990
- 18/6/110 07815029 93116846 PMID: 1475013  
Angiotensin II is retained in gonadotrophs of pituitary cell aggregates cultured in serum-free medium but does not mimic the effects of exogenous angiotensins and luteinizing-hormone-releasing hormone on growth hormone release. Oct 1992
- 18/6/111 07810246 93033506 PMID: 1357826  
Effect of somatostatin on adenylyl cyclase activity in normal and neoplastic thyroid tissue. Jul-Aug 1992
- 18/6/112 07794142 92175365 PMID: 1794605  
Effects of ageing on the growth and differentiated function of transfected human thyrocytes. Dec 1991
- 18/6/113 07788964 92123140 PMID: 1310140  
Carbachol-induced decrease in thyroid cell adenylyl cyclase activity is independent of calcium and phosphodiesterase activation. Jan 1992
- 18/6/114 07749836 92351701 PMID: 1379400  
Discontinuous and continuous stimulation of FRTL-5 thyroid cells with bTSH cause different cAMP and nuclear proliferation antigen responses. Jun 1992
- 18/6/115 07732242 90220542 PMID: 2157965  
Inhibition of iodide transport in thyroid cells by dysidenin, a marine toxin, and some of its analogs. Apr 1990
- 18/6/116 07717335 93093101 PMID: 1333981  
Impairment of the TSH signal transduction system in human thyroid carcinoma cells. Dec 1992
- 18/6/117 07716575 93077487 PMID: 1332945  
Mutation of alanine 623 in the third cytoplasmic loop of the rat thyrotropin (TSH) receptor results in a loss in the phosphoinositide but not cAMP signal induced by TSH and receptor autoantibodies. Dec 5 1992
- 18/6/118 07712752 93003162 PMID: 1327133  
Lipoprotein lipase expression in undifferentiated hepatoma cells is regulated by progesterone and protein kinase A. Oct 20 1992
- 18/6/119 07709900 92355671 PMID: 1322918  
Effect of TSH in human thyroid cells: evidence for both mitogenic and antimitogenic effects. Jul 1992
- 18/6/120 07672002 92350600 PMID: 1641279  
Neuroendocrine effects of toxic and low blood lead levels in children. Aug 1992
- 18/6/121 07548330 93164223 PMID: 1668859  
Effect of cholera toxin on serum levels of thyrotropin and thyroid autoantibodies in biobreeding/Tokyo (BB/TKY) rats. Sep 1991
- 18/6/122 07529040 91293201 PMID: 1648495  
P2-purergic activation of phosphoinositide turnover is potentiated by A1-receptor stimulation in thyroid cells. Jan 25 1991
- 18/6/123 07528746 91286228 PMID: 1648085  
Reciprocal modulation of thyrotropin actions by P1-purergic agonists in FRTL-5 thyroid cells. Inhibition of cAMP pathway and stimulation of phospholipase C-Ca2+ pathway. Jul 5 1991
- 18/6/124 07528478 91281812 PMID: 1647663  
Multiple calcium currents in a thyroid C-cell line: biophysical properties and pharmacology. Jun 1991
- 18/6/125 07525103 91210309 PMID: 1850422  
Thyrotropin and insulin-like growth factor I regulation of tyrosine phosphorylation in FRTL-5 cells. Interaction between cAMP-dependent and growth factor-dependent signal transduction. Apr 25 1991
- 18/6/126 07521080 91093161 PMID: 1845972  
Regulation of prostaglandin synthesis by thyrotropin, insulin or insulin-like growth factor-I, and serum in FRTL-5 rat thyroid cells. Jan 5 1991
- 18/6/127 07476617 92087699 PMID: 1750363  
Changes induced in newborn piglets by the trichothecene toxin T-2. 1991
- 18/6/128 07353370 90338658 PMID: 2166102
- Effect of thyrotropin and cAMP on FRTL5 cell growth in a serum free medium. May 1990
- 18/6/129 07343939 90188384 PMID: 2156016  
Alpha 1-adrenergic receptor mediates arachidonic acid release in spinal cord neurons independent of inositol phospholipid turnover. Apr 1990
- 18/6/130 07341599 90126600 PMID: 2153526  
The mechanism involved in the conversion of thyrotropin receptor-bound blocking-type immunoglobulin G (IgG) to the stimulating-type by anti-human IgG antibodies. Feb 1990
- 18/6/131 07233484 90334698 PMID: 2378673  
Thyrotropin regulation of apical and basal exocytosis of thyroglobulin by porcine thyroid monolayers. Jun 1990
- 18/6/132 07111148 94157131 PMID: 8113438  
Botulinum toxin type A in upper lid retraction of Graves' ophthalmopathy. Dec 1993
- 18/6/133 07071575 93212796 PMID: 8384790  
Major role of dihydropyridine-sensitive Ca2+ channels in Ca(2+)-induced calcitonin secretion. Mar 1993
- 18/6/134 07040163 93174745 PMID: 8438470  
DAB486-IL-2 (IL-2 toxin) in combination with low-dose RS-61443 (mycophenolate mofetil) prolongs murine thyroid allograft survival. Feb 1993
- 18/6/135 07013540 92381061 PMID: 1512271  
K-ras transformation greatly increases the toxin-dependent ADP-ribosylation of GTP binding proteins in thyroid cells. Involvement of an inhibitor of the ADP-ribosylation reaction. Aug 25 1992
- 18/6/136 07013506 92380336 PMID: 1355052  
Inhibitory effect of somatostatin on cAMP accumulation and calcitonin secretion in C-cells: involvement of pertussis toxin-sensitive G-proteins. Aug 1992
- 18/6/137 07011035 92404761 PMID: 1668617  
The site of the molecular defect in the thyroid gland of the hyt/hyt mouse: abnormalities in the TSH receptor-G protein complex. Summer 1991
- 18/6/138 06984593 90280482 PMID: 2162060  
Evidence that a guanine nucleotide-binding protein linked to a muscarinic receptor inhibits directly phospholipase C. Jun 1990
- 18/6/139 06983322 90235828 PMID: 2158884  
Cholera toxin differentially decreases membrane levels of alpha and beta subunits of G proteins in NG108-15 cells. Mar 30 1990
- 18/6/140 06976361 93127057 PMID: 1336223  
Serotonergic signalling between thyroid cells: protein kinase C and 5-HT2 receptors in the secretion and action of serotonin. Oct 1992
- 18/6/141 06955728 90248481 PMID: 2337619  
Modification of the adenylyl cyclase activity of bovine thyroid plasma membranes by manipulating the ganglioside composition with a nonspecific lipid transfer protein. May 9 1990
- 18/6/142 06953255 90193775 PMID: 2315737  
Cow dung, rock salt, and medical innovation in the Hindu Kush of Pakistan: the cultural transformation of neonatal tetanus and iodine deficiency. 1990
- 18/6/143 06951932 90151676 PMID: 2154380  
Regulation by butyrate of the cAMP response to cholera toxin and forskolin in pituitary GH1 cells. Feb 14 1990
- 18/6/144 06933035 93131566 PMID: 1362426  
Somatostatin acts via a pertussis toxin-sensitive mechanism on calcitonin secretion in C-cells. 1992
- 18/6/145 06895291 93064763 PMID: 1437204  
Bilateral thyroarytenoid denervation: a new treatment for laryngeal hyperadduction disorders studied in the canine. Nov 1992
- 18/6/146 06849998 91365819 PMID: 1679761  
The biological activity of bovine and human thyrotropin is differently affected by trypsin treatment of human thyroid cells: thyroid-stimulating antibody is related to human thyrotropin. Oct 1991
- 18/6/147 06843812 91207455 PMID: 1708253  
Increases in cytosolic Ca++ down-regulate thyrotropin receptor gene expression by a mechanism different from the cAMP signal. Apr 15 1991
- 18/6/148 06838916 91070715 PMID: 1701365  
The role of serotonin in the development and environmental regulation of type II corticosteroid receptor binding in rat hippocampus. Sep 1 1990
- 18/6/149 06838543 91056156 PMID: 1700796  
Relationship between proliferation and cell cycle-dependent Ca2+ influx induced by a combination of thyrotropin and insulin-like growth factor-I in rat thyroid cells. Nov 1990

18/6/150 06838073 91038279 PMID: 1700085

Multiple signal transduction mechanisms leading to the secretion of 5-hydroxytryptamine by MTC cells, a neuroectodermally derived cell line. Nov 1990

18/6/151 06835472 90332644 PMID: 1696008

Cloning, chromosomal assignment, and regulation of the rat thyrotropin receptor: expression of the gene is regulated by thyrotropin, agents that increase cAMP levels, and thyroid autoantibodies. Aug 1990

18/6/152 06725400 91199992 PMID: 1964897

Human chorionic gonadotropin promotes thyroid growth via thyrotropin receptors in FRTL-5 cells. Oct 1990

18/6/153 06720528 91072377 PMID: 2174885

Inhibition of atrial natriuretic peptide-induced cGMP accumulation by purinergic agonists in FRTL-5 thyroid cells. Involvement of both pertussis toxin-sensitive and insensitive mechanisms. Dec 15 1990

18/6/154 06713055 90270351 PMID: 1971826

Graves' immunoglobulin G stimulates iodothyronine 5'-deiodinating activity in thyroid cells. Jun 1990

18/6/155 06668494 91032402 PMID: 2226981

Botulinum toxin therapy in dysthyroid strabismus. 1990

18/6/156 06603472 88107794 PMID: 3337806

Modification of TSH-stimulated adenylate cyclase activity of bovine thyroid by manipulation of membrane phospholipid composition with a nonspecific lipid transfer protein. Jan 22 1988

18/6/157 06574571 89210545 PMID: 2707169

The glucocorticoid hormone dexamethasone reverses the growth hormone-releasing properties of the cholinomimetic carbachol. May 1989

18/6/158 06540530 89034847 PMID: 2903179

Demonstration of the production and physiological role of insulin-like growth factor II in rat thyroid follicular cells in culture. Nov 1988

18/6/159 06533779 88137174 PMID: 2893730

Pathophysiological role of thyroid blocking antibody in patients with primary hypothyroidism. Oct 1987

18/6/160 06437617 87232835 PMID: 3295994

Skeletal fluorosis in humans: a review of recent progress in the understanding of the disease. 1986

18/6/161 06285615 87132149 PMID: 3816079

Intrathyroidal autonomic nerves can directly influence hormone release from rat thyroid follicles: a study in vitro employing electrical field stimulation and intracellular microelectrodes. Feb 1987

18/6/162 06272887 87099986 PMID: 3800944

Effect of adenosine deaminase, N6-phenylisopropyladenosine and hypothyroidism on the responsiveness of rat brown adipocytes to noradrenaline. Sep 1 1986

18/6/163 06220002 86204801 PMID: 3703521

Botulinum toxin for the treatment of dysthyroid ocular myopathy. Apr 1986

18/6/163 06220002 86204801 PMID: 3703521

Botulinum toxin for the treatment of dysthyroid ocular myopathy. Apr 1986

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06220002 86204801 PMID: 3703521

Botulinum toxin for the treatment of dysthyroid ocular myopathy. Apr 1986

Tags: Case Report; Female; Human; Male; Support, Non-U.S. Gov't

Descriptors: Botulinum Toxins--therapeutic use--TU;

\*Ophthalmoplegia--drug therapy--DT; \*Thyroid Diseases--

complications--CO; Adult; Aged; Amblyopia--drug therapy--DT;

Amblyopia--etiology--ET; Botulinum Toxins--adverse effects--AE;

Middle Age; Ophthalmoplegia--complications--CO; Ophthalmoplegia--

etiology--ET

CAS Registry No.: 0 (Botulinum Toxins)

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10359010 20000371 PMID: 10532571

What is the role of botulinum toxin in the treatment of dysthyroid strabismus?

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BACKGROUND: Botulinum toxin A has been used in the treatment of dysthyroid strabismus primarily as a temporary measure during the active phase of the disease. We report on our

experience with 65 patients. METHOD: We review the records of 65 patients with dysthyroid strabismus who were treated with botulinum toxin A at Moorfields Eye Hospital between 1984 and

06091938 85150179 PMID: 3978100

characteristics of bovine thyroid plasma membranes. Mar 28 1985

18/6/165 06086644 85127039 PMID: 3971982

Thyrotropin modifies the synthesis of actin and other proteins during thyroid cell culture. Mar 1 1985

18/6/166 06075880 90088425 PMID: 2557011

Stimulation of generation of inositol phosphates by carbamoylcholine and its inhibition by phorbol esters and iodide in dog thyroid cells. Nov 1 1989

18/6/167 06058586 91042589 PMID: 3155264

Incubation of bovine thyroid slices with thyrotropin is associated with a decrease in the ability of pertussis toxin to adenosine diphosphate-ribosylate guanine nucleotide regulatory component(s). Jul 1987

18/6/168 06065855 91042588 PMID: 3155263

Adenosine diphosphate ribosylation of G proteins by pertussis and cholera toxin in isolated membranes. Different requirements for and effects of guanine nucleotides and Mg<sup>2+</sup>. Jul 1987

18/6/169 06064388 90261566 PMID: 2517671

The arachidonic acid signal system in the thyroid: regulation by thyrotropin and insulin/IGF-I. 1989

18/6/170 06064386 90261564 PMID: 2561508

ADP ribosylation and G protein regulation in the thyroid. 1989

18/6/171 06062152 90079889 PMID: 2512386

Distribution of the alpha-subunit of the guanine nucleotide-binding protein Gi2 and its comparison to G alpha o. 1989

18/6/172 06058688 89350890 PMID: 2504151

Guanine-nucleotide-binding proteins Gi and Gs in fat-cells from normal, hypothyroid and obese human subjects. Jun 15 1989

18/6/173 06058098 89327268 PMID: 2546944

A permissive role of pertussis toxin substrate G-protein in P2-purinergic stimulation of phosphoinositide turnover and arachidonate release in FRTL-5 thyroid cells. Cooperative mechanism of signal transduction systems. Aug 5 1989

18/6/174 06057517 89306122 PMID: 2663567

Thyroglobulin gene expression as a differentiation marker in primary cultures of calf thyroid cells. Jan 1989

18/6/175 06033462 88337808 PMID: 3138826

Guanyl nucleotide regulatory proteins in neoplastic and normal human thyroid tissue. Aug 1988

18/6/176 06031934 89252031 PMID: 2542083

Stimulation of adenosine receptor enhances alpha 1-adrenergic receptor-mediated activation of phospholipase C and Ca<sup>2+</sup> mobilization in a pertussis toxin-sensitive manner in FRTL-5 thyroid cells. May 8 1989

18/6/177 06029935 89148433 PMID: 2537573

Hepatocyte beta-adrenergic responsiveness and guanine nucleotide-binding regulatory proteins. Feb 1989

18/6/178 06029773 89136895 PMID: 2537177

Islet cell-activating protein reverses anti-fucosyl GM1 ganglioside antibody-induced inhibition of adenosine 3',5'-monophosphate production in FRTL-5 rat thyroid cells. Mar 1989

18/6/179 06022336 88243816 PMID: 2837483

Thyrotropin stimulation of lysosomal tyrosine transport in rat FRTL-5 thyroid cells. Jul 5 1988

18/6/180 06021991 88228394 PMID: 2836470

Mitogenic effects of thyrotropin and adenosine 3',5'-monophosphate in differentiated normal human thyroid cells in vitro. Jun 1988

18/6/181 06020075 88137599 PMID: 3125065

Adenylate cyclase activity of v-ras-k transformed rat epithelial thyroid cells. Feb 8 1988

18/6/182 06013585 87275935 PMID: 3038542

Thyrotropin effect on the availability of Ni regulatory protein in FRTL-5 rat thyroid cells to ADP-ribosylation by pertussis toxin. Jul 15 1987

1996. CONCLUSIONS: Patients with a short duration of relatively mild dysthyroid strabismus have a chance of long-term benefit with botulinum toxin A. There is little use for botulinum toxin A in cases of severe dysthyroid disease. Record Date Created: 19991123

18/6/183 06012058 87213217 PMID: 3107555

Multiple isoforms of ADP-ribosylated G-like proteins from mammalian thyroid membranes. Apr 14 1987

18/6/184 06004572 86279129 PMID: 3016048

Inhibition of thyrotropin-stimulated adenosine 3',5'-monophosphate formation in rat thyroid cells by an adenosine analog. Evidence that the inhibition is mediated by the putative inhibitory guanine nucleotide regulatory protein. 1986

18/6/185 0599964 87016915 PMID: 3020540

Phospholipase A2 and phospholipase C are activated by distinct GTP-binding proteins in response to alpha 1-adrenergic stimulation in FRTL5 thyroid cells. Oct 1986

18/6/186 05998196 87128012 PMID: 3028381

Role of pertussis toxin sensitive G proteins in the alpha 1 adrenergic receptor but not in the thyrotropin receptor mediated activation of membrane phospholipases and iodide fluxes in FRTL-5 thyroid cells. Dec 30 1986

18/6/187 05998164 87126855 PMID: 2434027

Alpha 1-adrenergic regulation of TSH-stimulated cyclic AMP accumulation in rat thyroid cells. Feb 15 1987

18/6/188 05993703 86274409 PMID: 2426089

Evidence that adenosine 3',5'-monophosphate mediates stimulation of thyroid growth in FRTL5 cells. Aug 1986

18/6/189 05990130 86079192 PMID: 3000588

Stimulation of cell proliferation and inhibition of differentiation expression by tumor-promoting phorbol esters in dog thyroid cells in primary culture. Feb 1986

18/6/190 05986692 86030260 PMID: 2996887

Antagonistic effects of thyrotropin and epidermal growth factor on thyroglobulin mRNA level in cultured thyroid cells. Oct 15 1985

18/6/191 05985339 85286022 PMID: 2411613

Studies on the mechanism of desensitization of the cyclic AMP response to TSH stimulation in a cloned rat thyroid cell line. Aug 1985

18/6/192 05983357 85204900 PMID: 2987064

Thyrotropin modulates EGF receptor function in porcine thyroid follicle cells. Apr 1985

18/6/193 05981918 85131002 PMID: 2982825

Fat cell adenylate cyclase system. Enhanced inhibition by adenosine and GTP in the hypothyroid rat. Feb 25 1985

18/6/194 05948424 88297495 PMID: 2841216

The adenylate cyclase system and calcitonin secretion from perfused dog thyroid lobes. May 1988

18/6/195 05940674 89338240 PMID: 2547582

Insulin-like growth factor-I potentiates thyrotropin stimulation of adenylyl cyclase in FRTL-5 cells. Sep 1989

18/6/196 05925481 89062561 PMID: 2848590

Homologous and heterologous beta-adrenergic desensitization in hepatocytes. Additivity and effect of pertussis toxin. Dec 9 1988

18/6/197 05911374 87294932 PMID: 3039775

Role of the adenylate cyclase-cAMP system on TSH-stimulated thyroid cell growth. 1987

18/6/198 05907845 88082851 PMID: 3691532

Iodide-induced inhibition of adenylate cyclase activity in horse and dog thyroid. Dec 30 1987

18/6/199 05900120 87247650 PMID: 3036626

Regulation of calcium fluxes in the thyroid. May 1987

18/6/200 05896398 87162673 PMID: 3030831

Adenylate cyclase system responsive to thyroid stimulating hormone (TSH) of porcine thyroid cells in primary monolayer cultures. Potential effect of forskolin on TSH-mediated adenylate cyclase stimulation] Jan 20 1987

18/7/11 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

10358931 20000569 PMID: 10532769

Strabismus surgery among aged medicare beneficiaries.

Repka MX

Wilmer Ophthalmological Institute, Johns Hopkins Hospital, Baltimore, MD 21287-9009, USA.

Journal of AAPOS (UNITED STATES) Dec 1997, 1 (4) p231-4, ISSN 1091-8531

Journal Code: C99 Languages: ENGLISH Document type: Journal Article Record type: Completed



**OBJECTIVES:** The purpose of this study was to investigate the incidence of strabismus surgery among aged patients in the United States. **METHODS:** The Medicare Part B claims experience (physician professional fee billing) for 1995 was reviewed for the number of times each strabismus surgical procedure recognized in Physicians' Current Procedural Terminology (CPT) was performed. To determine the indications for the procedures that were performed, a 5% sample of claims was reviewed for the pertinent International Classification of Diseases, Ninth Revision, Clinical Modification, diagnostic codes. **RESULTS:** There were 27 million aged Medicare beneficiaries eligible for Part B benefits in 1995 in a fee-for-service setting. During that year physicians reported 9497 strabismus physician services. These represented 6585 separate procedures (CPT codes 67311 to 67343) and 277 botulinum toxin (Botox) injections for strabismus (CPT 67345) performed during 1995. Sixty-nine percent of the surgical procedures were for horizontal correction and 28% were for vertical correction. Adjustable sutures were used for only 1240 cases (1.9%). The add-on procedural code for reoperation surgery or surgery in the presence of restriction of the extraocular muscles was used in just 930 cases (14%). The most common diagnosis for horizontal surgery was exotropia. Paralytic strabismus and thyroid disease were identified for 17% of cases. Three percent of the diagnoses were inappropriate for the procedures performed and may have been reported in error. **CONCLUSIONS:** These data confirm a very low incidence of strabismus surgical procedures (2/10,000) and injections (1/100,000) among aged Medicare beneficiaries. The strabismus surgery was most often performed to repair a horizontal deviation. The adjustable suture technique was used infrequently. These data may be extrapolated into the future to aid in determining the strabismus services that will be needed early in the next century. Record Date Created: 19991102

18/7/20 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 10021711 99082623 PMID: 9865104

Bilateral laryngeal movement disorder and synkinesia: value of botulinum toxin. Apropos of a case] Trouble de la mobilité laryngée bilatérale et syncinésies: intérêt de la toxine botulique. A propos d'un cas.

Marie JP; Navarre I; Leroisey Y; Magnier P; Dehesdin D; Andrieu Guirancourt J  
C.H.U. Rouen, Service d'ORL et Chirurgie Cervico-Faciale, France.  
Revue de laryngologie - otologie - rhinologie (FRANCE) 1998, 119 (4) p261-4, ISSN 0035-1334 Journal Code: SDD

Languages: FRENCH Document type: Journal Article Record type: Completed  
Several years after a subtotal thyroidectomy complicated by bilateral vocal cord paralysis, the patient presented with progressive dyspnea due to laryngeal synkinesia. The impairment of the ventilation status, in spite of laser arytenoidectomy, followed by contralateral posterior transverse cordotomy, suggested a botulinum toxin injection in the intrinsic adductor laryngeal muscles. The rapid improvement in ventilation without phonatory impairment is discussed in the following report. Record Date Created: 19990212

18/7/23 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09825762 98378683 PMID: 9713061

Botulinum toxin A treatment of overactive corrugator supercilii in thyroid eye disease.  
Oliver JM  
Western Eye Hospital, London.

British journal of ophthalmology (ENGLAND) May 1998, 82 (5) p528-33, ISSN 0007-1161  
Journal Code: AZK Languages: ENGLISH Document type: Clinical Trial; Journal Article  
Record type: Completed

**BACKGROUND/AIM:** Patients with thyroid eye disease with upper eyelid retraction often develop overaction of the accessory muscles of eyelid closure, the glabellar muscles corrugator supercilii and procerus. The resultant glabellar furrowing (frown lines) contributes to the typical thyroid facies. The aim of this study was to evaluate the use of botulinum toxin A reversible chemodenervation of the glabellar muscles as adjunctive treatment in the rehabilitation of patients with thyroid eye disease. **METHODS:** 14 patients (13 females) ages 39-76 years (mean 52) with inactive thyroid eye disease and associated medial eyebrow ptosis and prominent glabellar frown lines were recruited. All patients had a history of upper eyelid retraction. Each patient was treated with a single botulinum toxin injection (Dysport 0.2 ml, 40 units) into each corrugator supercilii and sometimes procerus muscles as an outpatient procedure. The effectiveness and acceptability of the treatment was assessed clinically and from a patient questionnaire. **RESULTS:** The injections were tolerated by 13/14 (93%) patients. There was resultant flattening of the glabellar region and improvement of medial eyebrow contour in all patients, with onset of paralysis within 1 week. All patients reported a subjective improvement in appearance. Side effects included one patient (7%) with reversible partial ptosis. The beneficial effect lasted 4-6 months, with a gradual return of function. Repeat treatment was indicated where there was persistent upper eyelid retraction and protractor overaction. **CONCLUSION:** Botulinum toxin A chemodenervation of the glabellar muscles in these patients was effective and acceptable. Chemodenervation should be considered in the rehabilitation of patients with thyroid eye disease where there is upper eyelid retraction and overacting protractors resulting in a thyroid frown. Once the eyelid retraction has been successfully treated by surgery, the need for further glabella muscle chemodenervation is considerably reduced. Record Date Created: 19980827

18/7/24 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09783338 98283956 PMID: 9618427

Effect of antithyroid drugs on hydroxyl radical formation and alpha-1-proteinase inhibitor inactivation by neutrophils: therapeutic implications.

Ross AD; Dey I; Janes N; Israel Y  
Department of Pharmacology, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada M5S 1A8.

Journal of pharmacology and experimental therapeutics (UNITED STATES) Jun 1998, 285 (3) p1233-8, ISSN 0022-3565 Journal Code: JP3 Contract/Grant No.: 5P50 AA07186, AA, NIAAA; R01 AA10967, AA, NIAAA; R37-AA10967, AA, NIAAA  
Languages: ENGLISH Document type: Journal Article Record type: Completed

The release of proteolytic enzymes and generation of strong oxidants such as the hydroxyl radical by activated neutrophils has been proposed to play an important role in mediating toxin-induced liver injury. The antithyroid drug propylthiouracil protects against liver injury induced by many hepatotoxic agents and markedly reduces mortality in patients with alcoholic liver disease. However, the mechanism(s) by which propylthiouracil protects against liver injury is not well understood. The present studies investigate the effect of antithyroid drugs on proteolytic enzyme activity and on hydroxyl radical generation from activated neutrophils. In the presence of hydrogen peroxide and chloride, neutrophil myeloperoxidase, an enzyme from the same gene superfamily as thyroid peroxidase, generates hypochlorous acid which inactivates alpha-1-proteinase inhibitor (A1PI) present in serum. This inactivation allows neutrophil-released proteolytic enzymes to attack cells. In the present study myeloperoxidase activity was inhibited fully at therapeutic concentrations by antithyroid drugs (propylthiouracil and methimazole). Antithyroid drugs fully prevented hypochlorous acid formation, and prevented neutrophil-mediated inactivation of A1PI, with concomitant blockage of proteolytic activity. Conversely, generation of both superoxide and hydroxyl radicals by activated neutrophils was unaffected by propylthiouracil. The production of these oxygen radicals was fully inhibited by the NADPH oxidase inhibitor diphenylene iodonium chloride, however. These studies indicate that antithyroid drugs are unlikely to prevent cell injury by inhibiting hydroxyl radical generation or by scavenging hydroxyl radicals, but are likely to exert their hepatoprotective anti-inflammatory action by inhibiting neutrophil myeloperoxidase, an enzyme akin to thyroid peroxidase. Record Date Created: 19980702

18/7/25 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09700286 98184392 PMID: 9525480

Protein tyrosine phosphorylation and calcium signaling in thyroid FRTL-5 cells.

Tomquist K; Dugue B; Ekokoski E  
Department of Biosciences, University of Helsinki, Finland.

Journal of cellular physiology (UNITED STATES) May 1998, 175 (2) p211-9, ISSN 0021-9541 Journal Code: HNB Languages: ENGLISH Document type: Journal Article Record type: Completed

We examined the importance of tyrosine kinase(s) on the ATP-evoked Ca<sup>2+</sup> entry and DNA synthesis of thyroid FRTL-5 cells. ATP rapidly and transiently tyrosine phosphorylated a 72-kDa protein(s). This phosphorylation was abolished by pertussis toxin and by the tyrosine kinase inhibitor genistein, and was dependent on Ca<sup>2+</sup> entry. Pretreatment of the cells with genistein did not affect the release of sequestered Ca<sup>2+</sup>, but the capacitative Ca<sup>2+</sup> or Ba<sup>2+</sup> entry evoked by ATP or thapsigargin was attenuated. Pretreatment of the cells with orthovanadate enhanced the increase in intracellular free Ca<sup>2+</sup> ([Ca<sup>2+</sup>]<sub>i</sub>), whereas the Ba<sup>2+</sup> entry was not increased. Phorbol 12-myristate 13-acetate (PMA) phosphorylated the same protein(s) as did ATP. Genistein inhibited the ATP-evoked phosphorylation of MAP kinase and attenuated both the ATP- and the PMA-evoked DNA synthesis. However, genistein did not inhibit the ATP-evoked expression of c-fos. Furthermore, genistein enhanced the ATP-evoked release of arachidonic acid. Thus, ATP activates a tyrosine kinase via a Ca<sup>2+</sup>-dependent mechanism. A genistein-sensitive mechanism participates, in part, in the ATP-evoked activation of DNA synthesis. Genistein inhibits only modestly capacitative Ca<sup>2+</sup> entry in FRTL-5 cells. Record Date Created: 19980416

18/7/26 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09674340 98070720 PMID: 9405207

Loss of biological activity due to Glu->Arg mutation at residue 11 of the B subunit of cholera toxin.

Yamaoka J; Yamasaki S; Kurazono H; Imamura S; Noda M; Miyai K; Takeda Y  
Faculty of Medicine, Kyoto University, Kyoto, Sakyo-ku, 606-01, Japan.

Microbial pathogenesis (ENGLAND) Nov 1997, 23 (5) p297-302, ISSN 0882-4010  
Journal Code: MIC

Languages: ENGLISH Document type: Journal Article Record type: Completed  
Since it has been reported that a single amino acid mutation of Gly->Arg in the CAGYC region of the beta chain of human thyroid stimulating hormone (hTSH) was responsible for congenital isolated TSH deficiency, and that the same amino acid substitution in this site of hTSH and human chorionic gonadotropin (hCG) introduced by site-directed mutagenesis resulted in loss of activity, the authors studied the role of glutamic acid at position 11 (Glu-11) from the N-terminus of the B subunit of cholera toxin (CT), which corresponds to the glycine in the CAGYC region of the beta chain of hTSH and hCG. A mutant CT constructed by site-directed mutagenesis in which Glu-11 was replaced by Arg (CT-E11R) did not induce either morphological changes or accumulation of cytosolic cyclic AMP in Chinese hamster ovary cells, although it formed the holotoxin AB<sub>5</sub>, retained the ability to bind to GM1-ganglioside and showed ADP-ribosyltransferase activity. Weak assembly of the B subunits in mutant CT-E11R demonstrated by sodium dodecyl sulfate-polyacrylamide gel electrophoresis under non-heating conditions might explain the loss of biological activity. Copyright 1997 Academic Press Limited. Record Date Created: 19980317

18/7/31 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09469678 97375443 PMID: 9231760

Thyroid-specific expression of cholera toxin A1 subunit causes thyroid hyperplasia and hyperthyroidism in transgenic mice.

Zeiger MA; Saji M; Gusev Y; Westra WH; Takiyama Y; Dooley WC; Kohn LD; Levine MA  
Department of Surgery, Johns Hopkins Medical Institutions, Baltimore, Maryland 21205, USA.

Endocrinology (UNITED STATES) Aug 1997, 138 (8) p3133-40, ISSN 0013-7227  
Journal Code: EGZ Contract/Grant No.: RO-1 DK34281, DK, NIDDK Languages: ENGLISH  
Document type: Journal Article Record type: Completed

Thyroid cell growth and function are regulated by hormones and growth factors binding to cell surface receptors that are coupled via G proteins, Gs and Gq, to the adenylyl cyclase and phospholipase C signal transduction systems, respectively. Activating mutations of the TSH receptor and G alpha s have been documented in subsets of thyroid neoplasms. To test the oncogenic potential of activated G alpha s in transgenic mice, we used the cholera toxin A1 subunit that constitutively activates G alpha s and used the rat thyroglobulin gene promoter for

targeting this transgene (TGCT) to thyroid follicular cells. Three (M1358, and F1286) of six founders identified were able to transmit the transgene to their offspring and thyroid glands from these mice contained elevated levels of cAMP. Concentrations of serum thyroxine were elevated as early as 2 months of age (M 1392 and F 1286). F1358 mice were euthyroid until 8 months of age, at which time they developed hyperthyroidism. All three TGCT lines developed thyroid hyperplasia independent of their thyroxine levels. DNA image analysis of thyroid follicular cells from both the hyper and euthyroid mice showed that DNA index and "S+G2/M" phase were increased compared with normal, changes similar to that seen in poor prognosis human carcinomas. These data suggest that the G alpha s-adenylyl cyclase-cAMP pathway has an important role in thyroid hyperplasia and the transgenic mouse models reported herein will allow further examination of the role of this pathway in thyroid oncogenesis. Record Date Created: 19970815

18/7/38 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09342718 97329812 PMID: 9186271

Assessment of thyroid growth stimulating activity of immunoglobulins from patients with autoimmune thyroid disease by cytokinesis arrest assay. Miyamoto S; Kasagi K; Alam MS; Misaki T; Iida Y; Konishi J Department of Nuclear Medicine, Faculty of Medicine, Kyoto University, Japan. European journal of endocrinology (ENGLAND) May 1997, 136 (5) p499-507, ISSN 0804-4643 Journal Code: BXU Languages: ENGLISH Document type: Journal Article Record type: Completed

OBJECTIVE: To develop a novel bioassay for the assessment of thyroid cell growth stimulating activity using cytochalasin B (CB) and to test immunoglobulins (IgGs) from patients with autoimmune thyroid diseases. DESIGN: The assay is based on the principle that growing cells during incubation with CB show an increased number of nuclei in a cell (N/C index), since CB, at appropriate concentrations, is known to inhibit cytoplasmic cleavage without affecting nuclear mitosis. The N/C index represents potential DNA production while cells are incubated with CB. METHODS: FRTL-5 thyroid cells were incubated with various thyroid stimulators in TSH-free medium containing 2 mg/l CB for 3 days. After the incubation, the cells were harvested in trypsin/EDTA to obtain single cell suspension, fixed, dropped onto a glass slide, stained and observed under a microscope to determine the N/C index. RESULTS: Bovine TSH at  $10^{-3}$ -1.0 U/l, forskolin at  $1 \times 10^{-7}$ - $10^{-5}$  mol/l, cholera toxin at  $10 \times 10^{-5}$ - $10^{-3}$  mg/l, or (Bu) $_2$ cAMP at  $1 \times 10^{-5}$ - $10^{-3}$  mol/l increased the N/C index up to approximately 2.0 in a dose-dependent manner. IgGs not only from 27 patients with untreated goitrous Graves' disease but also from 14 patients with goitrous Hashimoto's thyroiditis elicited an increase in the N/C index, which exceeded the mean + 2 S.D. of the values for 17 normal subjects (mean  $\pm$  S.D., 1.063  $\pm$  0.014). Four patients with primary myxedema displayed a normal N/C index. In Graves' disease, the N/C index did not correlate significantly with thyroid stimulating antibodies (TSAb) activities but did correlate significantly with estimated goiter size ( $P < 0.05$ ). IgGs containing blocking-type TSH-receptor antibodies inhibited the TSH- or Graves IgG-stimulated increase in N/C index almost completely, but did not influence the stimulatory effect of IgG from two patients with Hashimoto's thyroiditis. CONCLUSIONS: We have developed a sensitive and simple assay for thyroid growth stimulating activity by using CB, and found that all tested patients with goitrous Graves' disease and goitrous Hashimoto's thyroiditis have thyroid growth stimulating immunoglobulins whose activity does not correlate with TSAb. Record Date Created: 19970710

18/7/45 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 09159599 97154483 PMID: 9001201

Thyroid hormones as neurotransmitters.

Dratman MB; Gordon JT

Department of Medicine, MCP Hahnemann School of Medicine, Allegheny University, and Medical Research Service, Veterans Affairs Medical Center, Philadelphia, Pennsylvania 19104, USA.

Thyroid (UNITED STATES) Dec 1996, 6 (6) p639-47, ISSN 1050-7256 Journal Code: BJW Contract/Grant No.: 45252, PHS Languages: ENGLISH Document type: Journal Article; Review; Review, Tutorial Record type: Completed

During brain development, before the apparatus of neurotransmission has been set into place, many neurotransmitters act as growth regulators. In adult brain, their role in neurotransmission comes to the fore but neuronal plasticity and other growth-related processes are their continuing responsibility. This has been clearly demonstrated for catecholamines. Previous as well as recent evidence now indicates that thyroid hormones may participate in the developing and adult brain through similar mechanisms. Immunohistochemical mapping of brain triiodothyronine (antibody specificity established by numerous appropriate tests) demonstrated that the hormone was concentrated in both noradrenergic centers and noradrenergic projection sites. In the centers (locus coeruleus and lateral tegmental system) triiodothyronine staining, like that of tyrosine hydroxylase, was heavily concentrated in cytosol and cell processes. By contrast, in noradrenergic targets, label was most prominent in cell nuclei. Combined biochemical and morphologic data allows a construct of thyroid hormone circuitry to unfold: The locus coeruleus is conveniently located just beneath the ependyma of the 4th ventricle. Thyroxine, entering the brain via the choroid plexus, is preferentially delivered to subependymal brain structures. High concentrations of locus coeruleus norepinephrine promote active conversion of thyroxine to triiodothyronine, leading to the preeminence of the locus coeruleus as a site of triiodothyronine concentration. Results of treatment with the locus coeruleus neurotoxin DSP-4 established that axonal transport accounts for delivery of both triiodothyronine and norepinephrine from locus coeruleus to noradrenergic terminal fields. The apparatus for transduction of thyronergic and noradrenergic signals at both membrane and nuclear sites resides in the postsynaptic target cells. Upon internalization of hormone in post-synaptic target cells, genomic effects of triiodothyronine, norepinephrine, and/or their second messengers are possible and expected. The evidence establishes a direct morphologic connection between central thyronergic and noradrenergic systems, supporting earlier proposals that triiodothyronine or its proximate metabolites may serve as cotransmitters with norepinephrine in the adrenergic nervous system. (35 Refs.) Record Date Created: 19970328

18/7/84 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 08164191 94255188 PMID: 8196929

Control of eyelid retraction associated with Graves' disease with botulinum A toxin.

Biglan AW

Department of Ophthalmology, University of Pittsburgh School of Medicine, Pa.

Ophthalmic surgery (UNITED STATES) Mar 1994, 25 (3) p186-8, ISSN 0022-023X

Journal Code: OIC Languages: ENGLISH Document type: Journal Article Record type: Completed

Two patients had satisfactory control of eyelid retraction associated with thyroid orbitopathy with repeated treatment of the levator palpebrae superioris muscle with botulinum A toxin. The effects of the toxin lasted for 3 to 4 months. Record Date Created: 19940630

18/7/88 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 08072229 93228655 PMID: 8471065

Tissue- and subunit-specific regulation of G-protein expression by hypo- and hyperthyroidism.

Michel-Reher MB; Gross G; Jasper JR; Bernstein D; Olbricht T; Brodde OE; Michel MC

Department of Medicine, University of Essen, Germany.

Biochemical pharmacology (ENGLAND) Apr 6 1993, 45 (7) p1417-23, ISSN 0006-2952

Journal Code: 924 Contract/Grant No.: HL 38741, HL, NHLBI Languages: ENGLISH

Document type: Journal Article Record type: Completed

Thyroid hormone status has profound effects on signal transduction in various tissues throughout the body. Therefore, we quantified the signal transducing G-proteins in the rat heart, cerebral cortex, vas deferens and liver by immunoblotting and pertussis toxin labeling in response to chemically induced hypothyroidism (treatment with propylthiouracil) and hyperthyroidism (treatment with triiodothyronine). Levels of the pertussis toxin (PTX) substrates Gi alpha and Go alpha in the heart and vas deferens were inversely correlated with thyroid hormone levels, i.e. Gi alpha and Go alpha were decreased or unchanged in hyperthyroid rats and increased in hypothyroid rats compared to control animals. The cerebral cortex and liver expression of PTX substrates Gi alpha and Go alpha was not affected by changes in thyroid hormone. Regulation of Gs alpha protein was more complex in that Gs alpha was unaffected in the other tissues tested. Expression of G-protein beta-subunits was not affected by thyroid status in the heart, liver, or cerebral cortex. Our results suggest that tissue- and G-protein-specific factors are involved in the regulation of G-protein subunits by thyroid hormone. Moreover, cardiac expression of Gs alpha is upregulated by increases or decreases in the normal level of thyroid hormone. Record Date Created: 19930510

18/7/93 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 07947261 94041171 PMID: 8225200

Regulation of calcitonin secretion in vitro.

Raue F; Zink A; Schenubl H

Abt. Innere Medizin I, Endokrinologie und Stoffwechsel, Universitat Heidelberg, Germany.

Hormone and metabolic research (GERMANY) Sep 1993, 25 (9) p473-6, ISSN 0018-5043

Journal Code: GBD Languages: ENGLISH Document type: Journal Article; Review; Review, Tutorial Record type: Completed

The concentration of extracellular calcium rightly regulates calcitonin secretion by calcium influx through dihydropyridine-sensitive voltage-dependent calcium channels; the result is an increase in intracellular calcium. There also exists a cAMP-dependent pathway of calcitonin release activated by glucagon or growth hormone releasing hormone. In thyroid C-cells, as in all cells, there is dual regulation of adenylate cyclase, mediated by inhibitory or stimulatory G proteins; glucagon stimulated cAMP production can be inhibited by somatostatin via pertussis toxin sensitive inhibitory G proteins. Somatostatin inhibits not only cAMP dependent but also calcium-dependent calcitonin secretion. Furthermore, somatostatin inhibits voltage dependent calcium channel currents thereby lowering cytosolic calcium. These actions also involve a pertussis toxin-sensitive inhibitory G protein but they occur independently of changes in the cytosolic cAMP concentration. Thus multiple interactions between second messenger systems at different cellular levels modulate calcitonin secretion. (30 Refs.) Record Date Created: 19931217

18/7/94 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv. 07911503 93145899 PMID: 8381075

Overexpression of the intact thyrotropin receptor in a human thyroid carcinoma cell line.

Namba H; Yamashita S; Usa T; Kimura H; Yokoyama N; Izumi M; Nagataki S

Department of Cell Physiology, Nagasaki University School of Medicine, Japan.

Endocrinology (UNITED STATES) Feb 1993, 132 (2) p839-45, ISSN 0013-7227 Journal Code: EGZ Languages: ENGLISH Document type: Journal Article Record type: Completed

Although thyrotropin is known to regulate thyroid cell differentiation and proliferation, human thyroid carcinoma cells are relatively insensitive or resistant to TSH stimulation. The expression levels of TSH receptor are significantly lower in carcinoma tissues than in normal tissues. Furthermore, in vitro human thyroid cell growth is not regulated by TSH itself. We, therefore, isolated neomycin-resistant stable human thyroid carcinoma cell (WRO cell) transfectants overexpressing intact human TSH receptor to evaluate the functional role of TSH receptor on carcinoma cells. Southern blot analysis confirmed incorporation and amplification of human TSH receptor complementary DNA sequences into genomic DNA. Northern gel analysis and reverse transcriptase-polymerase chain reaction analysis revealed the presence of specific TSH receptor messenger RNA (4.0 kilobases), and the specific binding and the affinity of [ $^{125}$ I]TSH on stably transfected WRO cells were demonstrated compared to wild type. Nevertheless, impaired cAMP production to transfectants by TSH was observed. cAMP production was confirmed after stimulation of both wild type and transfectants by forskolin, cholera toxin, and isoproterenol. In contrast, TSH could affect the cytoplasmic calcium mobilization immediately after the addition of TSH to WRO transfectants. These results suggest that the impairment of TSH action on human thyroid carcinoma cells is not due to a major structural abnormality of the TSH receptor, reduction

in the receptor number, or receptor affinity, but much more likely due to TSH receptor-guanylyl nucleotide-binding protein coupling defect. Record Date Created: 1997-03-02

20/6/1 10358931 20000569 PMID: 10532769

Strabismus surgery among aged medicare beneficiaries. Dec 1997

20/6/2 10021711 99082623 PMID: 9865104

[Bilateral laryngeal movement disorder and synkinesia: value of botulism toxin. Apropos of a case] Trouble de la mobilité laryngée bilatérale et syncinésies: intérêt de la toxine botulique. A propos d'un cas. 1998

20/6/3 08164191 94255188 PMID: 8196925

Control of eyelid retraction associated with Graves' disease with botulinum A toxin. Mar 1994

20/6/4 07433158 91214931 PMID: 1902375

Management of dysthyroid eye disease. Apr 1991

20/6/5 07111148 94157131 PMID: 8113438

Botulinum toxin type A in upper lid retraction of Graves' ophthalmopathy. Dec 1993

20/6/6 06668510 91032399 PMID: 2226978

Thyroid eye disease. 1990

20/6/7 06668494 91032402 PMID: 2226981

Botulinum toxin therapy in dysthyroid strabismus. 1990

20/6/8 06275988 87108295 PMID: 3804629

Botulinum in the treatment of adult motility disorders. Winter 1986

20/6/9 06220002 86204801 PMID: 3703521

Botulinum toxin for the treatment of dysthyroid ocular myopathy. Apr 1986

20/6/10 06145851 86084827 PMID: 3841096

Botulinum chemodenervation for strabismus and other disorders. Winter 1985

20/6/11 05312485 89385497 PMID: 2779991

Botulinum toxin therapy of eye muscle disorders. Safety and effectiveness. American Academy of Ophthalmology. Sep 1989

20/6/12 05259551 90199325 PMID: 3273259

[The use of botulinum toxin in endocrine exophthalmos] Utilisation de la toxine botulinique dans les exophtalmies endocriniennes. 1988

20/6/13 05204825 89026356 PMID: 3179055

Botulinum toxin. Aug 1988

20/6/14 05131078 87070940 PMID: 3466462

Diplopia in thyroid eye disease. 1986

20/6/15 04905297 84225515 PMID: 6676980

Saccadic velocity measurements in strabismus. 1983

20/6/16 04576471 85026678 PMID: 6489104

Injection treatment of endocrine orbital myopathy. Aug 15 1984



207/6 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

06668510 91032399 PMID: 2226978

Thyroid eye disease.

Elston JS

Eye (ENGLAND) 1990, 4 ( Pt 4) pvii, ISSN 0950-222X

Journal Code: EYE

247/1 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

07433158 91214931 PMID: 1902375

Management of dysthyroid eye disease.

Fells P

Moorfields Eye Hospital, London.

British journal of ophthalmology (ENGLAND) Apr 1991, 75 (4) p245-6, ISSN 0007-1161

Journal Code: AZK Languages: ENGLISH Document type: Journal Article; Review; Review,

Tutorial Record type: Completed (10 Refs.) Record Date Created: 19910605

247/2 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

06668510 91032399 PMID: 2226978

Thyroid eye disease.

Elston JS

Eye (ENGLAND) 1990, 4 ( Pt 4) pvii, ISSN 0950-222X Journal Code: EYE

Languages: ENGLISH Document type: Editorial Record type: Completed Record Date Created: 19901205

247/3 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

06668494 91032402 PMID: 2226981

Botulinum toxin therapy in dysthyroid strabismus.

Lyons CJ; Vickers SF; Lee JP

Moorfields Eye Hospital, London.

Eye (ENGLAND) 1990, 4 ( Pt 4) p538-42, ISSN 0950-222X Journal Code: EYE

Languages: ENGLISH Document type: Journal Article Record type: Completed

We report our experience with the use of Botulinum toxin injection in 38 patients (64 injections) with severe dysthyroid strabismus. Three quarters of the injections led to a decrease in the angle of the squint by a mean 75% of the initial deviation. The average duration of effect was two months. Twenty six patients went on to surgery after stabilisation of their squint and endocrine status. Six patients achieved a stable long-term result with Botulinum toxin only. We suggest these results of treatment of early dysthyroid myopathy are more consistent with the characteristics of inflammatory spasm than contracture. The value of Botulinum toxin as a temporary means of maintaining binocularity in these young patients is discussed. Record Date Created: 19901205

247/4 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

06275988 87108295 PMID: 3804629

Botulinum in the treatment of adult motility disorders.

Hoffman RO; Helveston EM

International ophthalmology clinics (UNITED STATES) Winter 1986, 26 (4) p241-50, ISSN

0020-8167 Journal Code: GTZ Languages: ENGLISH Document type: Journal Article

Record type: Completed Record Date Created: 19870326

247/5 DIALOG(R)File 155:MEDLINE(R) (c) format only 2001 Dialog Corporation. All rts. reserv.

06220002 86204801 PMID: 3703521

Botulinum toxin for the treatment of dysthyroid ocular myopathy.

Dunn WJ; Arnold AC; O'Connor PS

Ophthalmology (UNITED STATES) Apr 1986, 93 (4) p470-5, ISSN 0161-6420 Journal

Code: OI5 Languages: ENGLISH Document type: Journal Article Record type: Completed

Eight consecutive patients with acquired deviations due to dysthyroid ocular myopathy were injected with botulinum A toxin for relief of their diplopia. Seven patients were acute in the onset of symptoms and one was chronic. All showed improvement in motility and experienced a reduction if not total relief of their symptoms. Six patients required reinjection. Complications were limited to transient ptosis, transient involvement of adjacent muscles and transient but prolonged paralysis that eventually resolved. No systemic complications were noted. We conclude that chemodenervation with botulinum A toxin may have a role in the management of dysthyroid ocular myopathy not amenable to prism treatment and may act as an adjunct to or eliminate the need for surgical correction in some patients. Record Date Created: 19860613

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05204825 89026356 PMID: 3179055

Botulinum toxin.

Kowal L

Australian and New Zealand journal of ophthalmology (AUSTRALIA) Aug 1988, 16 (3)

p264-6, ISSN 0814-9763 Journal Code: ANZ Languages: ENGLISH Document type: Journal

Article Record type: Completed Record Date Created: 19881220

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05131078 87070940 PMID: 3466462

Diplopia in thyroid eye disease.

Fells P; McCarty B

Transactions of the ophthalmological societies of the United Kingdom ( ENGLAND) 1986,

105 ( Pt 4) p413-23, ISSN 0078-5334 Journal Code: WA1 Languages: ENGLISH Document

type: Journal Article Record type: Completed

Record Date Created: 19870122

Pages: ENGLISH Document type: Editorial Record

type: Completed Record Date Created: 19901205

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05204825 89026356 PMID: 3179055

Botulinum toxin.

Kowal L

Australian and New Zealand journal of ophthalmology

(AUSTRALIA) Aug 1988, 16 (3) p264-6, ISSN 0814-9763

Journal Code: ANZ Languages: ENGLISH Document type:

Journal Article Record type: Completed Record Date Created:

19881220

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04576471 85026678 PMID: 6489104

Injection treatment of endocrine orbital myopathy.

Scott AB

Documenta ophthalmologica (NETHERLANDS) Aug 15 1984, 58 (1) p141-5, ISSN 0012-

4486 Journal Code: EBF

Contract/Grant No.: EY02106, EY, NEI Languages: ENGLISH Document type: Journal Article

Record type: Completed

Eight patients with endocrine orbital myopathy received botulinum toxin injection of extraocular muscles for strabismus or injections of the levator for lid retraction. Strabismus of 25 prism diopters or less, especially during early stages of eye muscle involvement, responded well to injection with realignment and, probably, with avoidance of fixed muscle shortening. Long-standing strabismus, large angles, and lid retraction responded less well. Record Date Created: 19841123